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EXAMINER
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JUNTIMA, NITTAYA

ART UNIT	PAPER NUMBER
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2663

DATE MAILED: 09/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/933,633

Applicant(s)

PANDIAN ET AL.

Examiner

Nittaya Juntima

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 14, 15, 19 and 20 is/are rejected.
- 7) ☒ Claim(s) 9-13 and 16-18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This action is in response to the amendment filed on 7/11/2005.
2. The objections to the drawings, specification, and claims are withdrawn in view of applicant's amendment.
3. Claims 1-2, 6-8, 14, 19, and 20 are rejected under 35 U.S.C. 102(b)
4. Claims 3-5 and 15 are rejected under 35 U.S.C. 103(a)
5. Claims 9-13 and 16-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
6. In the remarks on page 11, first paragraph, the applicant indicated that claims 21 and 22 were added. However, they were not (see Listing of Claims on pages 3-9 of the Amendment).

#### ***Claim Objections***

7. Claim 11 is objected to because of the following informalities:
  - in claim 11, ll 4, "SVCs" should be changed to "switched virtual circuits (SVCs)"
  - ll 8-9, "switched virtual circuits (SVCs) should be changed to "SVCs" to put the claim in a better format.

#### ***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-2, 6-8, 14, 19, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Liang et al. ("Liang") (USPN 5,781,529).

Regarding claim 1, Liang teaches a method comprising:

a first network switch (a node that receives the CALL SETUP message with Routing DTL information element, col. 7, ll 48-63) receiving a message (a CALL SETUP message, Fig. 3, col. 5, ll 66-col. 6, ll 1) at one (input port) of a plurality of interfaces to the first network switch, wherein the message comprises data (BYTE 1, Fig. 5, which includes INPUT SLOT ID and OUTPUT SLOT ID of the previous Element, e.g. Element #1, of a routing DTL shown in Fig. 4, col. 6, ll 1-16) and a data transit list (reads on BYTE 0 with NODE ID of ELEMENT #1 – ELEMENT #N, see Figs. 4 and 5 and col. 6, ll 1-16);

the first network switch reading data (BYTE 1, Fig. 5, the previous Element, e.g. Element #1, of the routing DTL shown in Fig. 4) contained in the message;

the first network switch generating first data (BYTE 1 of the previous ELEMENT, e.g. Element #1 of the CALL SETUP message and BYTE 1 of the current ELEMENT, e.g. ELEMENT #2, which includes the INPUT SLOT ID of the receiving node) as a function of both the data (BYTE 1 of Element #1) and first interface identifier data (INPUT SLOT ID of the receiving node in the current ELEMENT, e.g. ELEMENT # 2) which corresponds to the one of the plurality of interfaces (col. 7, ll 56-63);

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the first network switch replacing the data in the message with the first data thereby creating a first modified message (the CALL SETUP message is modified with BYTE 1 of the previous Element #1 and BYTE 1 of the current ELEMENT #2, col. 7, ll 56-63);

the first network switch outputting (forwards) the first modified message at another of the plurality of interfaces (output port of the received node) (col. 7, ll 63-66).

Regarding claim 2, Liang teaches the claimed elements; a second network switch (the next node that receives the CALL SETUP message) receiving the message on its input port and transmitting a second modified message (the message with the updated information on BYTE 1 of the previous ELEMENTs, e.g. ELEMENTS #1 and #2, and the ELEMENT, e.g. ELEMENT #3, that corresponds to the next node that now receives the message, Figs. 4 and 5) with second data (BYTE 1 of ELEMENTS # 1-3, Figs. 4 and 5) via its output port, as recited in the claim (col. 7, ll 63-66 and col. 10, ll 42-46).

Regarding claim 6, Liang teaches that the message comprises call reference data (call reference, Fig. 3), and the first network switch (a receiving node, e.g. a destination node) must copy the call reference data (call reference IE) into a memory location which corresponds to the first data ((i) BYTE 1 of the previous ELEMENT, e.g. Element #1 of the CALL SETUP message and (ii) BYTE 1 of the current ELEMENT, e.g. ELEMENT #2, which includes the INPUT SLOT ID of the receiving node, since routing DTL IEs are stored, therefore, (i) and (ii) must also be stored). See col. 7, ll 56-65 and col. 10, ll 52-56, see also col. 3, ll 49-55.

Regarding claims 7 and 19, Liang teaches generating the first data (BYTE 1 of the previous ELEMENT, e.g. Element #1 of the CALL SETUP message and BYTE 1 of the current ELEMENT, e.g. ELEMENT #2, which includes the INPUT SLOT ID and OUTPUT SLOT ID

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of the receiving node) comprises concatenating the first interface data (INPUT SLOT ID of the receiving node) with the data (BYTE 1 of the previous ELEMENT, e.g. Element #1). See Figs. 4-5 and col. 7, ll 48-63.

Regarding claim 8, Liang teaches that the first network switch (a receiving node, e.g. a destination node) creating a first SVC (VPI/VCI, col. 10, ll 42-46) for processing communication data transmitting between at least two end devices (originating and terminating DTEs, col. 4, ll 65-col. 5, ll 3), and the first network switch mapping the first SVC (VPI/VCI) to the call reference data (the destination node stores the call reference IE along with the routing DTL IEs which include the VPI/VCI, col. 10, ll 42-56, therefore, the VPI/VCI must be mapped to the call reference).

Claim 14 is a computer readable medium claim corresponds to method claim 1, and therefore is rejected under the same reason set forth in the rejection of claim 1 with an addition of instructions executable by a processor contained in a network switch (operations conducted by processor means at a receiving node, col. 9, ll 25-col. 10, ll 41) implementing the method of claim 1.

Claim 20 is a network switch claim corresponds to method claim 1, and therefore is rejected under the same reason set forth in the rejection of claim 1 with the additions of a data memory (RAM 54, Fig. 2, col. 5, ll 22-43), a plurality of interfaces (input/output ports 40a-40h, Fig. 2, col. 5, ll 22-43), a processor (processor 52, Fig. 2, col. 5, ll 22-43), and an instructions memory comprising instructions executable by the processor (operations conducted by processor means at a receiving node, col. 9, ll 25, Fig. 7A-7B, must be stored at an instructions memory in order to be executable by the node processor).

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*Claim Rejections - 35 USC § 103*

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 3-5 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liang et al. ("Liang") (USPN 5,781,529).

Regarding claims 3 and 15, Liang teaches the first network switch creating a first SVC (VPI/VCI) for processing communication data, wherein the first SVC is created in response to receiving the message (an incoming message, e.g. a SETUP message). See col. 7, ll 56-66.

Liang fails to explicitly teach that the first network switch storing data relating to the first SVC into a memory location, wherein the memory location corresponds to the first data.

However, an examiner notice is taken that data relating to the first SVC, e.g. a VPI/VCI value, is stored into a memory location of the node in order to keep track of the resource being allocated and the SVC being established.

Therefore, since the first SVC, i.e. a VPI/VCI value, is designated by a receiving node and corresponds to the DTL data of the received message and input port value of the receiving node (col. 7, ll 56-65), it would have been obvious to one skilled in the art at the time the invention was made to modify the teaching of Liang to include that the first network switch storing data relating to the first SVC into a memory location, wherein the memory location corresponds to the first data (i.e. corresponding to the DTL data of the received message and

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input port value of the receiving node) in order to keep track of the resource being allocated and the first SVC being established.

Regarding claim 4, see rejection of claim 3 regarding the first network switch creating a first SVC and storing data relating to the first SVC into a memory location. Liang fails to teach the claimed elements relating to the second network switch as recited in the claim. However, since Liang teaches that each node receiving the CALL SETUP message will fill in its input port and a VPI/VCI (col. 10, ll 42-46), thus it would have been obvious to one skilled in the art at the time the invention was made to modify the teaching of Liang to also include the claimed elements relating to the second network switch as recited in the claim in order to keep track of the resource being allocated and the second SVC being established.

Regarding claim 5, Liang teaches the first network switch allocating a portion of its data processing resources (a VPI/VCI) to process communication data in response to receiving the message (an incoming message, e.g. a SETUP message). See col. 7, ll 56-66.

Liang fails to explicitly teach that the first network switch storing data relating to the first SVC into a memory location, wherein the memory location corresponds to the first data.

However, an examiner notice is taken that data relating to the first SVC, e.g. a VPI/VCI value, is stored into a memory location of the node in order to keep track of the resource being allocated and the SVC being established.

Therefore, since the first SVC, i.e. a VPI/VCI value, is designated by a receiving node and corresponds to the DTL data of the received message and input port value of the receiving node (col. 7, ll 56-65), it would have been obvious to one skilled in the art at the time the invention was made to modify the teaching of Liang to include that the first network switch



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storing data relating to the first SVC into a memory location, wherein the memory location corresponds to the first data (i.e. corresponding to the DTL data of the received message and input port value of the receiving node) in order to keep track of the resource being allocated and the first SVC being established.

### *Response to Arguments*

12. Applicant's arguments filed on 7/11/2005 have been fully considered but they are not persuasive.

A. In the remarks regarding the amended claim 1, the applicant argued that the claim recites that the first network switch generates first data as a function of both the data and the first interface identifier data, not generating first data as a function of the DTL.

In response, as shown in Figs. 4 and 5, Liang teaches that the routing DTL IE in Fig. 4 is a concatenation of six-byte elements, e.g. ELEMENT #1 – ELEMENT #N, where each six-byte element and its contents are shown in Fig. 5, col. 6, ll 1-16. Liang further teaches that “when node receives the DTL (i.e. the routing DTL IE in Fig. 4), it looks for the first element of the DTL which has not had the process flag set. That element should include the node ID of the receiving node..the receiving node..inserts the input slot ID and input link..values in their appropriate fields...Then, the receiving node forwards the message with the updated DTL to the output port designated by the DTL..” (col. 7, ll 56-65, clarification added). Therefore, the DTL and the data of claim 1 now read on (i) the concatenation of BYTE 0 of each ELEMENT#1 – ELEMENT# N, i.e. the concatenation of NODE IDs, and (ii) BYTE 1, which contains INPUT SLOT ID and OUTPUT SLOT ID, of the previous Element, e.g. Element #1, respectively. As a

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result, when all the appropriate fields are filled by the receiving node, the first data (the concatenation of BYTE 1 of ELEMENT #1 and BYTE 1 of ELEMENT #2) must be generated as a function of the data (BYTE 1 of ELEMENT #1) and the first interface identifier data (INPUT SLOT ID of the receiving node in BYTE 1 of ELEMENT #2). Since there is not structural or function difference between the claimed elements and the teaching of Liang, therefore, Liang teaches the elements as claimed and the rejection is maintained.

### *Conclusion*

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nittaya Juntima whose telephone number is 571-272-3120. The examiner can normally be reached on Monday through Friday, 8:00 A.M - 5:00 P.M.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nittaya Juntima  
September 20, 2005

*NJ*

  
RICKY NGO  
PRIMARY EXAMINER  
*9/27/05*